

**CLAIMS**

What is claimed is:

- 1     1.     A solenoid fuel drain valve comprising a valve body, having a drain hole and  
2     an air inlet opening, a solenoid coil and a piston, the drain hole having a drain inlet  
3     and a drain outlet, and the piston being arranged within the valve body to be moveable  
4     between a closed condition, wherein the drain hole and the air inlet opening are  
5     sealed, and an open condition, wherein the drain hole and the air inlet opening are  
6     open, movement of the piston being controlled by the solenoid.
- 1     2.     A solenoid fuel drain valve according to claim 1, wherein the valve body  
2     defines an interior chamber into which the air inlet opening and the drain hole open.
- 1     3.     A solenoid fuel drain valve according to claim 1, wherein the valve body  
2     comprises an air passage connecting the air inlet opening to an air source.
- 1     4.     A solenoid fuel drain valve according to claim 1, wherein the valve body  
2     comprises a drain passage connecting the drain inlet to the drain outlet.
- 1     5.     A solenoid fuel drain valve according to any one of the preceding claims,  
2     wherein the valve body comprises more than one air inlet opening.
- 1     6.     A solenoid fuel drain valve according to claim 1, wherein the piston comprises  
2     a rod and a head.
- 1     7.     A solenoid fuel drain valve according to claim 6, wherein the head is attached  
2     to the rod.
- 1     8.     A solenoid fuel drain valve according to claim 6, wherein the head is separate  
2     from the rod and moved by means of the rod.

1     9.     A solenoid fuel drain valve according to claim 6, wherein the head is adapted  
2     to provide a means of sealing at least one of the drain hole and the air inlet opening.

1     10.    A solenoid fuel drain valve according to claim 9, wherein the head is adapted  
2     to seal both of the drain hole and the air inlet opening.

1     11.    A solenoid fuel drain valve according to claim 6, wherein the piston comprises  
2     two or more heads, each of which may be independently attached to or separate from  
3     the rod.

1     12.    A solenoid fuel drain valve according to claim 11, wherein the piston  
2     comprises a first head attached to the rod and a second head separate from but moved  
3     by the rod.

1     13.    A solenoid fuel drain valve according to claim 12, wherein the rod comprises a  
2     flange extending therefrom to interact with the second head in use and effect  
3     movement of the second head upon movement of the rod.

1     14.    A solenoid fuel drain valve according to claim 6, wherein the piston is  
2     arranged in the valve body such that part at least of the rod extends through the drain  
3     hole.

1     15.    A solenoid fuel drain valve according to claim 1, comprising a solenoid  
2     armature of magnetisable material attached to the piston.

1     16.    A solenoid fuel drain valve according to claim 15, wherein the solenoid  
2     armature and the piston are arranged such that energization and de-energization of the  
3     solenoid effects movement of the solenoid armature, which in turn causes movement  
4     of the piston.

1     17.    A solenoid fuel drain valve according to claim 15, comprising a solenoid stem  
2     of magnetisable material.

1     18.     A solenoid fuel drain valve according to claim 17, wherein the solenoid stem  
2     is arranged within the valve body such that energization of the solenoid coil causes a  
3     magnetic field to be induced in the solenoid stem and the solenoid armature.

1     19.     A solenoid fuel drain valve according to claim 1, comprising biasing means to  
2     bias the piston into either the closed or open position.

1     20.     A solenoid fuel drain valve according to claim 19, wherein the biasing means  
2     is one or more spring.

1     21.     A solenoid fuel drain valve according to claim 19, wherein the valve further  
2     comprises a retaining surface against which the biasing means acts to provide the  
3     biasing force.